



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R05-OAR-2020-0388; FRL-10016-08-Region 5]

Air Plan Approval; Ohio; Base Year Emission Inventories and Emissions Statement Rule Certification for the 2015 Ozone Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve, under the Clean Air Act (CAA), a revision to the State Implementation Plan (SIP) submitted by the Ohio Environmental Protection Agency on July 24, 2020. The CAA establishes emission inventory requirements for all ozone nonattainment areas. The revision will address the emission inventory requirements for the Cleveland, Ohio (OH) nonattainment area and the Ohio portion of the Cincinnati, Ohio-Kentucky (Cincinnati) ozone nonattainment area, as designated under the 2015 ozone National Ambient Air Quality Standard (NAAQS or standard). Also, EPA is proposing to approve Ohio's certification that its stationary annual emissions statement regulation, which has been previously approved by EPA under a prior ozone standard, satisfies the CAA emissions statement rule requirement for the Cleveland and Cincinnati nonattainment areas under the 2015 ozone NAAQS.

DATES: Comments must be received on or before **[insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R05-OAR-2020-0388 at <http://www.regulations.gov> or via email to blakley.pamela@epa.gov. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information disclosure of which is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **"For Further Information Contact"** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Charles Hatten, Environmental

Engineer, Control Strategies Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-6031, hatten.charles@epa.gov. The EPA Region 5 office is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays and facility closures due to COVID 19.

SUPPLEMENTARY INFORMATION: Throughout this document whenever "we," "us," or "our" is used, we mean EPA.

I. The 2015 Ozone NAAQS Emissions Inventory and Emissions Statement Rule Requirements

On October 26, 2015, EPA promulgated a revised 8-hour ozone NAAQS of 0.070 parts per million (ppm). See 80 FR 65292. The Cleveland and Cincinnati areas were designated as marginal nonattainment areas for the 2015 ozone NAAQS. See 83 FR 25776 (August 3, 2018). The Cleveland nonattainment area includes Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit Counties. The Cincinnati nonattainment area includes Butler, Clermont, Hamilton, and Warren Counties.

A. Emission Inventories

CAA sections 172(c)(3) and 182(a)(1), 42 U.S.C. 7502(c)(3) and 7511a(a)(1), require states to develop and submit, as a SIP revision, emission inventories for all areas designated as nonattainment for any NAAQS. An emission inventory for ozone is an estimation of actual emissions of air pollutants that

contribute to the formation of ozone in an area. Ozone is a gas that is formed by the reaction of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) in the atmosphere in the presence of sunlight (VOC and NO_x are referred to as ozone precursors). Therefore, an emission inventory for ozone focuses on the emissions of VOC and NO_x . VOC is emitted by many types of sources, including power plants, industrial sources, on-road and off-road mobile sources, smaller stationary sources collectively referred to as area sources, and biogenic sources. NO_x is primarily emitted by combustion sources, both stationary and mobile.

Emission inventories provide emissions data for a variety of air quality planning tasks, including establishing baseline emission levels (anthropogenic [manmade] emissions associated with ozone standard violations), calculating emission reduction targets needed to attain the NAAQS and to achieve reasonable further progress (RFP) toward attainment of the ozone standard (not required in the areas considered here), determining emission inputs for ozone air quality modeling analyses, and tracking emissions over time to determine progress toward achieving air quality and emission reduction goals. For the 2015 ozone NAAQS, states should submit ozone season day emission estimates for an inventory calendar year to be consistent with the baseline year for RFP plan as required by 40 CFR 51.1310(b).

For the RFP baseline year for the 2015 ozone NAAQS under 40 CFR 51.1310(b) states may use a calendar year for the most recently available complete triennial (3-year cycle) emissions inventory (40 CFR 51, subpart A) preceding the year of the area's effective date of designation as a nonattainment area. (83 FR 63034 - 63035, December 6, 2018)¹. States are required to submit estimates of VOC and NO_x emissions for four general classes of anthropogenic sources: stationary point sources; area sources; on-road mobile sources; and off-road mobile sources.

B. Emissions Statement Rules

Section 182(a)(3)(B) of the CAA requires states with ozone nonattainment areas to submit revisions to their SIP to require the owner or operator of each stationary source of NO_x or VOC to provide the state with an annual statement documenting the actual emissions of NO_x and VOC from their source. This requirement applies to each stationary source emitting greater than or equal to 25 tons per year of VOC or NO_x in an ozone nonattainment area.

Many states have adopted these emissions statement rules for a prior ozone NAAQS that cover all the state's nonattainment areas and relevant classes and categories of sources. For these states, EPA is accepting certifications that their previously

¹ The RFP requirements specified in CAA section 182(b)(1) shall apply to all area's designated nonattainment for ozone classified Moderate or higher.

adopted emissions statement rules remain in place and are adequate to meet the emissions statement rule requirement under the 2015 ozone standard. (83 FR 63002).

II. Ohio's Emission Inventories

On July 24, 2020, Ohio submitted a SIP revision addressing the emissions inventory requirement of CAA section 182(a)(1). Ohio provided documentation of a 2014 NO_x and VOC base year emissions inventory requirement for the Cleveland and Cincinnati ozone nonattainment areas. Ohio selected 2014 because this was one of the three years of ozone data indicating a violation of the ozone standard that were used to designate the areas as nonattainment for the 2015 ozone NAAQS. 83 FR 25778, 25779. In addition, the 2014 base year emissions inventory was the most recent comprehensive, accurate, and quality assured triennial emissions inventory in the National Emissions Inventory (NEI) database, available at the time the state began preparing the emissions inventory submittal for the Cleveland and Cincinnati areas.² Tables 1 and 2 summarize the 2014 NO_x and VOC emissions for Cleveland and Cincinnati areas in tons of emissions per

² The Cleveland and Cincinnati areas are currently classified as marginal nonattainment areas for the 2015 NAAQS and are therefore not subject to the reasonable further progress (RFP) requirement. If one or both areas are reclassified as moderate, the area(s) would become subject to the RFP provisions and Ohio would be required to replace the 2014 base year emissions inventory with a 2017 base year emissions inventory in accordance with the 2015 ozone NAAQS Implementation Rule, 83 FR 62998, 63004.

ozone season day.³

TABLE 1 – 2014 Ozone Season Day NO_x Emissions

	2014 Ozone Season Day NO _x Emissions (Tons/day)					
County/NAA	EGU ¹	NON-EGU Point	Area	Non-Road	Onroad	Total NO _x
Butler	0.39	10.83	2.28	4.28	12.40	30.18
Clermont	48.30	0.01	1.14	2.29	6.64	58.38
Hamilton	20.47	4.84	6.82	8.44	30.37	70.94
Warren	0.00	0.92	1.16	3.25	7.72	13.05
Cincinnati NAA	69.16	16.60	11.40	18.26	57.13	172.55
Cuyahoga	0.82	9.64	12.42	22.51	33.32	78.71
Geauga	0.00	0.02	0.75	1.88	2.49	5.14
Lake	5.46	1.83	3.90	6.26	6.51	23.96
Lorain	10.88	1.38	4.07	7.51	7.89	31.73
Medina	0.00	0.22	1.46	3.23	5.40	10.31
Portage	0.00	0.33	2.40	2.96	6.07	11.76
Summit	0.00	1.66	4.96	6.84	17.78	31.24
Cleveland NAA	17.16	15.08	29.96	51.19	79.46	192.85

¹Electric Generating Units (EGU)

TABLE 2 – 2014 Ozone Season Day VOC Emissions

	2014 OZONE SEASON DAY VOC EMISSIONS (Tons/day)					
County/NAA	EGU	NON-EGU Point	Area	Non-Road	Onroad	Total VOC
Butler	0.02	2.97	13.36	3.41	7.22	26.98
Clermont	0.27	0.40	6.50	2.39	4.01	13.57
Hamilton	0.34	2.05	31.30	8.61	14.51	56.81
Warren	0.00	0.51	9.02	2.74	3.93	16.20
Cincinnati NAA	0.63	5.93	60.18	17.15	29.67	113.56
Cuyahoga	0.01	3.14	42.66	32.24	14.38	92.43
Geauga	0.00	0.09	4.27	4.66	1.34	10.36
Lake	0.04	0.81	9.91	10.58	2.94	24.28
Lorain	0.17	1.90	8.88	11.81	3.57	26.33
Medina	0.00	0.55	6.83	4.84	2.36	14.58
Portage	0.00	1.14	7.29	6.68	2.33	17.44
Summit	0.00	1.16	19.63	9.40	6.89	37.08
Cleveland NAA	0.22	8.79	99.47	80.21	33.81	222.50

A. Base Year Emissions Inventory

Ohio estimated NO_x and VOC emissions for all source

³ The ozone season is the portion of the year in which high ozone concentrations may be expected in a given area.

categories by county for the Cleveland and Cincinnati ozone nonattainment areas. Emissions for these counties were totaled by source category for each ozone nonattainment area. To develop the NO_x and VOC emissions inventories, Ohio used the annual emissions data contained in EPA's 2014 National Emissions Inventory (2014 NEI.v2) database. To document the derivation of these emissions data, Ohio included EPA's "Technical Support Document (TSD) Preparation of Emissions Inventories for the Version 7.1 Emissions Modeling Platform" (August 2018) in the July 24, 2020, submittal. All annual NO_x and VOC emissions data collected from the 2014 v2 NEI were temporally allocated to ozone season day by using temporal files found in EPA's 2014v2 Air Emissions Modeling Platform (2014fd), <https://www.epa.gov/air-emissions-modeling/2014-version-71-platform>. Ozone season day emissions were derived by applying a separate conversion factor to the annual emissions for each source category by pollutant and nonattainment area.

B. How did the State develop the emission inventories?

For point sources (EGUs and non-EGUs), Ohio calculates and stores emissions data annually in the state's STARS database. Under the authority of Ohio Administrative Code (OAC) 3745-15-03, Ohio requires regulated stationary sources in the ozone nonattainment areas to submit emission inventory statements annually. These reports contain detailed source type-specific

or annual source unit-specific and seasonal actual emissions for all source units in a facility. The point source data for 2014 base year emissions inventory were submitted through EPA's bridge tool for submission to the Emissions Inventory System (EIS) Gateway for the 2014 NEI. Ohio provided a detailed list of EGU and non-EGU point sources included the 2014 base year emissions inventory by county, facility ID, unit ID, with their respective NO_x and VOC emissions within appendices A and B of their July 24, 2020, submittal.

For area source emissions, Ohio relied on a variety of state specific data to estimate emissions based on EPA's procedures and guidance for the 2014 base year emissions inventory. Area sources are spread over wide areas with no distinct discharge points or are comprised of a large number of small point sources that are difficult to describe separately and whose emissions are not well characterized (e.g., heating furnaces in individual homes, architectural surface coating, automobile refueling, dry cleaning, etc.).

To develop an accurate and complete area source inventory, Ohio used EPA's default data to describe activity levels or emissions when no state specific data was available. Ohio implemented quality control and quality assurance (QA) measures throughout the development of this inventory, with the help of EPA's Nonpoint Method Advisory committee. The emission data

Ohio collected were submitted through the EIS Gateway using EPA's bridge tool for submission into NEI. The quality control and QA of nonpoint data was primarily an ad-hoc process led by EPA. This process included comparing 2014 estimates to previous NEI cycles, gap-filling for missing pollutants, and evaluating outliers. In addition, for some source categories that have already been reported in the point source inventory, Ohio used EPA's "Point to Nonpoint Crosswalk" tool, which describes the similarities between point Source Classification Codes (SCCs) and nonpoint SCCs to help avoid double counting emissions.

Ohio has provided a detailed list of the area sources included in the 2014 base year emissions inventory by SCC and county, with their respective NOx and VOC emissions in appendix C, including a discussion how the emissions were derived for each source category within their July 24, 2020, submittal.

The nonroad mobile source emissions in the 2014 NEI were developed by the EPA using the 2014 NEI the Motor Vehicle Emissions Simulator (MOVES-2014a). Ohio did not provide state specific data for the development of nonroad emissions. In appendix D, Ohio provides a list of the nonroad sources included in the 2014 base year emissions inventory by SCC and county, with their respective NOx and VOC emissions.

On-road mobile source emissions in the 2014 NEI were developed by the EPA using the MOVES-2014a. The state specific

data was retrieved from the Ohio Department of Transportation, local metropolitan planning organizations (MPOs), and the Ohio Bureau of Motor Vehicles.

Most of the QA for on-road mobile emissions was processed through tools built into MOVES. Additionally, just like the point and nonpoint inventories, QA was performed when the data was submitted to the EIS Gateway. In appendix E, of the July 24, 2020, submittal, Ohio has documented on-road emissions by SCC and county.

The data provided by the Ohio Department of Transportation accounted for Highway Performance Monitoring System Vehicle Type Year and Road Type Distribution. Alternate Vehicle and Fuel Technology, Average Speed Distribution, and Month, Day and Hour Vehicle Miles Traveled Fractions were also provided by the Ohio Department of Transportation along with MPOs. The Ohio Bureau of Motor Vehicles provided Source Type Age Distribution and Source Type Year for all counties and for source types 11(motorcycles), 21(passenger cars), 31(passenger trucks) and 32(light commercial trucks) only. For the remaining source types, EPA defaults were used.

Most of the QA for on-road mobile emissions was processed through tools built into MOVES. Additionally, just like the point and nonpoint inventories, QA was performed when the data was submitted to the EIS Gateway. In appendix E, of the July

24, 2020, submittal, Ohio has documented on-road emissions by SCC and county.

III. Ohio's Emissions Statement Rule

Section 182(a)(3)(B) of the CAA requires states to include regulations in the SIP to require sources (source facilities) to submit annual statements characterizing sources of NO_x and VOC emission within the source facilities and to report actual NO_x and VOC emissions for these sources. Ohio confirmed in the July 24, 2020, submittal that their existing emissions reporting rule at OAC 3745-24, approved in Ohio's SIP remains in place and adequate to meet the CAA section 182(a)(3)(B) emissions statement requirement for the 2015 ozone standard. EPA approved this rule into the Ohio SIP on September 27, 2007 (72 FR 54844). This rule specifically requires all regulated source facilities in the ozone nonattainment areas that emit greater than or equal to 25 tons/year of NO_x or VOC during the reporting year to submit annual emissions statements. Ohio included a copy of rule OAC 3745-24 in the July 24, 2020, submission. See appendices, F1-F4.

On May 18, 2020, Ohio notified the public of the 30-day period the opportunity for comment, with respect to the requested SIP revision on Ohio's Department of Air Pollution Control Web site at: <https://epa.ohio.gov/dapc/sip/2015>. No comments were received, and no public hearing was requested.

IV. EPA's Evaluation

A. Emissions Inventory

EPA has reviewed Ohio's July 24, 2020 requested SIP revision for consistency with sections 172(c)(3) CAA and 182(a)(1) of the CAA, and EPA's emission inventory requirements. In particular, EPA has reviewed the techniques used by Ohio to derive and quality assure the emission estimates. Ohio documented the procedures used to estimate the emissions for each of the major source types. The documentation of the emission estimation procedures is very thorough and is adequate for us to determine that Ohio followed acceptable procedures to estimate the emissions.

Ohio developed a QA plan and followed this plan during various phases of the emissions estimation and documentation process to quality assure the emissions for completeness and accuracy. These QA procedures were summarized in the documentation describing how the emissions totals were developed. EPA has determined that the QA procedures are complete, adequate and acceptable. EPA proposes to find that Ohio has developed approvable inventories of NO_x and VOC emissions for the Cleveland and Cincinnati ozone nonattainment areas.

B. Emissions Statement Rule

EPA approved Ohio's emissions statement rule, OAC 3745-24,

into the Ohio SIP on September 27, 2007 (72 FR 54844), and it is currently being implemented. The rule requires sources of NO_x and VOC in the Cleveland and Cincinnati ozone nonattainment areas to annually report these emissions to the state if the sources emit NO_x and VOC equaling or exceeding 25 tons per year. EPA finds this acceptable and proposes to find that Ohio's emissions statement rule OAC 3745-24 meets the requirements of CAA section 182(a)(3)(B).

V. What action is EPA taking?

We are proposing to approve Ohio's SIP revision submitted to address the ozone-related emission inventory requirements for the Cleveland and Cincinnati ozone nonattainment areas for the 2015 ozone NAAQS. The emission inventories we are approving into the SIP are specified in Tables 1 and 2, shown above. We are proposing to approve the emission inventories because they contain comprehensive, accurate, and current inventories of actual emissions for all relevant sources in accordance with CAA sections 172(c)(3) and 182(a), and because Ohio adopted the emission inventories after providing for reasonable public notice and opportunity for a public hearing. Finally, we are also confirming that Ohio has acceptable and enforceable stationary annual emission statement regulations for the 2015 ozone standard.

VI. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because it is not a significant regulatory action under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or

uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);

- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on

tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Nitrogen dioxide, Ozone, Volatile organic compounds.

Dated: October 30, 2020.

Kurt Thiede,
Regional Administrator, Region 5.

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